

- I. Claims 18-25 drawn to a solution, classified in Class 424, Subclass 94.1, for example.
- II. Claims 26-36 drawn to a method for determining concentration of a substrate, classified in Class 435, Subclass 7.4, for example.
- III. Claims 37-45 drawn to a kit, classified in Class 435, Subclass 4, for example.

Election of Invention and Restriction for Examination

Applicants elect the invention of Group I, claims 18-25, for prosecution at this time, with traverse.

Traversal of Restriction Requirement

The Examiner argues that the inventions of Groups I and II are related as product and process of use but can be shown to be distinct because other materially different products could be used to determine substrate concentration such as by measuring optical density or by antigen-antibody binding.

Applicants respectfully disagree and traverse the Examiner's argument. The Examiner states that "other materially different products could be used to determine substrate concentration such as by *measuring optical density* or by *antigen-antibody binding*". (emphasis added) Applicants direct the Examiner's attention to independent method claims 26 and 27, step (b), which recite "*detecting the change in absorbance...*". Optical density is synonymous with absorbance, and thus the Examiner's argument is invalid. Further, Applicants are not aware of any antigen-antibody methods that can be used to determine either the concentration of a hydrogen-transferring substrate or the activity of a hydrogen-transferring enzyme. Independent claims 26 and 27 and claims 28-36 depending therefrom (Group II) both specifically recite forming a reaction mixture by combining the sample with a hydrogen-transferring enzyme (or substrate) and "a hydrogen-accepting coenzyme selected from the group consisting of NAD, NADP and

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derivatives thereof, and one or more compounds selected from the group consisting of organic compounds or salts thereof having a pKa value between 1.5 and 6.0 and nitrogen

compounds of the formula
$$\begin{array}{c} \text{R}^1-\text{O}-\text{N} \\ \quad \quad \quad \text{R}^2 \\ \quad \quad \quad \text{R}^3 \end{array}$$
 in which R¹, R² and R³ are the same or different and denote hydrogen or a saturated or unsaturated alkyl or aryl group, the reaction mixture characterized by the absence of glucose-6-phosphate dehydrogenase." This combination of elements is identical, in fact, to the aqueous solution combination claimed in independent claim 18 and claims 19-25 depending therefrom (Group I). Applicants argue that invention Groups I and II are related as product and process of use and that the Examiner has failed to show that they are distinct. It is Applicants' contention that the process of claims 26-36 cannot be used with a product materially different from that recited in claims 18-25, and similarly, the product claimed in claims 18-25 cannot be used in a process materially different from that recited in claims 26-36.

The Examiner argues that the inventions of Groups I and III and of Groups II and III are directed to different inventions which are not connected in design, operation, and/or effect. The Examiner asserts that these inventions are independent since they are not disclosed as capable of use together, they have different modes of operation, they have different functions, and/or they have different effects. One would not have to practice the various inventions at the same time to practice just one method alone.

Applicants respectfully disagree and traverse the Examiner's argument. Independent claims 37 and 38 and claims 39-45 depending therefrom (Group III) specifically recite a reagent comprising "a hydrogen-accepting coenzyme selected from the group consisting of NAD, NADP and derivatives thereof, and one or more compounds selected from the group consisting of organic compounds or salts thereof having a pKa value between 1.5 and 6.0 and nitrogen compounds of the

formula
$$\begin{array}{c} \text{R}^1-\text{O}-\text{N} \\ \quad \quad \quad \text{R}^2 \\ \quad \quad \quad \text{R}^3 \end{array}$$
 in which R¹, R² and R³ are the same or different and denote hydrogen

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or a saturated or unsaturated alkyl or aryl group, the reaction mixture characterized by the absence of glucose-6-phosphate dehydrogenase." This combination of elements is identical to the aqueous solution combination claimed in independent claim 18 and claims 19-25 depending therefrom (Group I). This combination of elements is also identical to the aqueous solution combination claimed in independent claims 26 and 27 and claims 28-36 depending therefrom (Group II). The Examiner has failed to show how the inventions of Groups I and III and of Groups II and III are not connected in design, operation, and/or effect.

Finally, the Examiner argues that the inventions have acquired a separate status in the art as a separate subject for inventive effect and require independent searches. The Examiner states that a reference which would anticipate the invention of one group would not necessarily anticipate or even make obvious another group.

Applicants respectfully disagree and traverse the Examiner's argument. Claims 18-45 in substantially their present form have been before the U.S. Patent Office for examination since January 12, 2001, and one or more searches have already been conducted, resulting in a rejection of all the claims based upon a single reference. Thus, the Patent Office itself has already set a precedent that a reference which might make one group of claims obvious also makes the other groups obvious. Furthermore, another complete patent search because of the amendments filed with Applicants Request for Continued Examined should not required, since the amended recitation is to an absence of glucose-6-phosphate dehydrogenase. Previous searches would already have uncovered any such references.

For the reasons set forth above, Applicants argue that the claims of Groups I, II, and III are linked so as to form a single general inventive concept and comprise the same or corresponding technical features. Applicants respectfully request the Examiner's reconsideration of the restriction requirement.

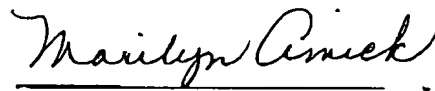
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The Examiner is hereby authorized to charge any fees associated with this
Amendment to Deposit Account No. 02-2958. A duplicate copy of this sheet is enclosed.

Respectfully submitted,



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